Evaluation Plan for Comprehensive Hospital Increase Reimbursement Program (CHIRP)

As Required by Centers for Medicare and Medicaid Services

TEXAS
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1. Background

The Comprehensive Hospital Increase Reimbursement Program (CHIRP) is a state directed payment program (DPP) for Hospitals that serve adults and children enrolled in STAR and STAR+PLUS. Six classes of hospitals are eligible to participate:

- children's hospitals;
- rural hospitals;
- state-owned non-Institutes of Mental Disease (IMD) hospitals;
- urban hospitals;
- non-state-owned IMDs; and
- state-owned IMDs.

CHIRP is a change to the existing Uniform Hospital Rate Increase Program (UHRIP), currently in its fourth year of operation. Redesign of the UHRIP program allows HHSC to monitor progress on focus areas identified in the DSRIP transition plan, which include:

- maternal health
- behavioral health
- patient navigation, care coordination, and care transitions, especially for patients with high costs and high utilization

Beginning in program year 5, the program includes two components. Component 1 (UHRIP) provides a uniform rate enhancement. Component 2 (Average Commercial Incentive Award (ACIA)) allows participating providers to earn higher reimbursement rates based upon a percentage of the estimated average commercial reimbursement.

Hospitals apply for participation in the program and can opt into the ACIA component. Participating hospitals are required to report program measures as a condition of participation for CHIRP, including for both the UHRIP and ACIA components. UHRIP includes two structure measures applicable to all participating hospitals and requires twice yearly submission of status updates for all measures.

ACIA includes structure, outcome, and process measures and requires twice-yearly submission of status updates for structure measure indicating if a provider is

implementing the structure measure, as well as data for outcome and process measures.

ACIA includes six modules which are groupings of measures around a similar hospital service type. Providers must report on all modules for which they are eligible. Eligibility for a module is determined by the hospital's provider class as defined in program enrollment and historic volume and type of services provided. This data will be used to monitor provider-level progress toward state quality objectives.

2. Methodology

Evaluation Questions and Hypotheses

CHIRP intends to advance four goals from the Texas Medicaid Quality Strategy: (1) promoting optimal health for Texans; (2) providing the right care in the right place at the right time; (3) attracting and retaining high-performing Medicaid providers to participate in team based, collaborative, and coordinated care; and (4) keeping patients free from harm. Texas developed four evaluation questions and 8 corresponding hypotheses to evaluate the extent to which CHIRP helped advance these goals.

Evaluation Question 1. Does CHIRP promote optimal health for Texans?

> Hypothesis 1.1. CHIRP will improve the rate of individuals practicing healthy behaviors

Evaluation Question 2. Does CHIRP provide the right care in the right place at the right time?

> Hypothesis 2.1. CHIRP will reduce the rate of avoidable hospital readmissions and will not increase the rate of avoidable hospital admissions

Evaluation Question 3. Does CHIRP help keep patients free from harm?

> Hypothesis 3.1 CHIRP will help to reduce the rate of avoidable complications and adverse healthcare events

Evaluation Question 4. Does CHIRP help promote effective practices for people with chronic, complex, and serious conditions?

> Hypothesis 4.1 CHIRP will reduce the rate of avoidable hospital and emergency department visits for individuals with medical complexity, including with co-occurring behavioral health diagnoses

Evaluation Question 5. Does CHIRP help attract and retain high-performing Medicaid providers to participate in team based, collaborative, and coordinated care?

> Hypothesis 5.1 CHIRP will reduce the proportion of the population reporting difficulties accessing care

> Hypothesis 5.2 CHIRP will increase the percentage of Hospitals that participate in learning collaboratives

Hypothesis 5.3 CHIRP will increase the percentage of Hospitals that participate in timely and efficient exchange of health information

Evaluation Design

Texas will use 9 validated measures to evaluate the extent to which CHIRP meets the intended quality outcomes at the Medicaid Managed Care (MMC) member level. The CHIRP evaluation will rely on a one-group post-test only design to assess the impact of CHIRP over time. The performance target for all evaluation measures is to maintain or exceed baseline performance and demonstrate improvement from program implementation to program completion relative to national trends in healthcare delivery. Subsequent sections provide additional information on the evaluation population, evaluation period, evaluation measures, data sources, and analytic methods.

Evaluation Population

The CHIRP program population includes hospitals serving adults and children in the STAR and STAR+PLUS Medicaid managed care (MMC) programs. The primary unit of analysis for CHIRP evaluation measures will be the Medicaid member and the CHIRP evaluation population will consist of all STAR and STAR+PLUS members, including those members who may not have had an encounter with a CHIRP hospital during the study timeframe. Where feasible, the CHIRP evaluation measures will also use provider-reported data for analysis at the hospital level to supplement MMC member data.

Evaluation Period

The evaluation includes five years of CHIRP implementation data (calendar years 2017 - 2021). CHIRP operates on state fiscal years (September 1 – August 31), whereas the evaluation periods operate on calendar years to align with reporting timelines of evaluation measures tracked by the Texas Medicaid External Quality Review Organization (EQRO). The EQRO provides data for a calendar year by November of the following year (e.g. CY2021 data will be available in November 2022). Table 1 shows timelines for the evaluation data, including EQRO data availability and hospital reporting. As CHIRP is a rate enhancement program, evaluation measures for future years are subject to change pending approval for each program year.

Table 1. CHIRP Evaluation Data Timing (Years 5 -7)

Year 5 Interim Evaluation Data, year 4 Final Evaluation Data (Completed February 2022)

Data Type	Data Available	Measurement Periods Available	Able Demonstrate a Trend in 2022
EQRO Reported Data (CHIRP Specific)	2 Years	CY2019 - CY2020	No
EQRO Reporting Data Continuing from UHRIP	5 Years	CY2016 – CY2020	Yes
Provider Reported Data	6 Months	Jan – Jun 2021	No
Provider Reported Structures	1 Reporting Period	Oct 2021	No

Year 6 Interim Evaluation Data, Year 5 Final Evaluation Data (Completed Feb 2023)

Data Type	Data Available	Measurement Periods Available	Able to Demonstrate a Trend in 2023
EQRO Reported Data (CHIRP Specific)	3 Years	CY2019 – 2021	Yes
EQRO Reporting Data Continuing from UHRIP	6 Years	CY2016 – CY2021	Yes
Provider Reported Data	1.5 Years	CY2021 Jan – Jun 2022	Preliminary
Provider Reported Structures	3 Reporting Periods	Oct 2021 – Oct 2022	Yes

Year 7 Interim Evaluation Data, Year 6 Final Evaluation Data (Completed Feb 2024)

Data Type	Data Available	Measurement Periods Available	Able to Demonstrate a Trend in 2024
EQRO Reported Data (CHIRP Specific)	4 Years	2019 – 2022	Yes
EQRO Reporting Data Continuing from UHRIP	7 Years	CY2016 -CY2022	Yes
Provider Reported Data	2.5 Years	CY2021 CY2022 Jan – Jun 23	Yes
Provider Reported Structures	5 Reporting Periods	Oct 2021 – Oct 2023	Yes

CHIRP is a uniform rate increase and subject to annual approval. Years 6 – 7 of the CHIRP program are included for illustration purposes only and subject to change.

Evaluation Measures

Table 2 provides an overview of the measures, study populations, data sources, and analytic methods by evaluation hypothesis. Table 3 includes the evaluation measures, baseline, and performance targets as required in the preprint, 44.a. Table 8.

Table 2. CHIRP Evaluation Measures

Evaluation Hypothesis	Measures	Study Population	Data Sources	Analytic Methods
Evaluation Question 1. Does CHIRP promote optimal health for Texans?				
1.1. CHIRP will improve rates of individuals practicing healthy behaviors	1.1.1. Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention 1.1.2 Preventive Care and Screening: Influenza Immunization	• Members served by ACIA enrolled rural hospitals	• ACIA Provider Reporting	• Descriptive statistics • Descriptive trend analysis
Evaluation Question 2. Does CHIRP promote the right care in the right place at the right time?				
2.1. CHIRP will reduce the rate of avoidable hospital readmissions and will not increase avoidable admissions.	2.1.1 Potentially Preventable Readmissions 2.1.2 Potentially Preventable Admissions	• STAR and STAR+PLUS members	• Medicaid member-level data	• Descriptive statistics • Descriptive trend analysis
Evaluation Question 3. Does CHIRP help keep patients free from harm?				
3.1 CHIRP will reduce the rate of avoidable complications or adverse healthcare events in all care settings	3.1.1 Severe Maternal Morbidity 3.1.2 Cesarean Section among Uncomplicated Deliveries 3.1.3 Potentially Preventable Complications	• STAR and STAR+PLUS members	• Medicaid member-level data	• Descriptive statistics • Descriptive trend analysis

Evaluation Hypothesis	Measures	Study Population	Data Sources	Analytic Methods
Evaluation Question 4. Does CHIRP promote effective practices for people with chronic, complex, and serious conditions?				
4.1. CHIRP will reduce rate of avoidable hospital and emergency department visits of individuals with medical complexity, including with co-occurring behavioral health diagnoses	4.1.1 Follow-Up After Hospitalization for Mental Illness 4.1.2 Follow-Up After ED Visits for Mental Illness	• STAR and STAR+PLUS members	• Medicaid member-level data	• Descriptive statistics • Descriptive trend analysis
Evaluation Question 5. Does CHIRP promote attracting and retaining high performing Medicaid providers to participate in team based, collaborative, and coordinated care?				
5.1 CHIRP will reduce the proportion of the population reporting difficulties accessing care	5.1.1. Getting Care Quickly 5.1.2. Getting Needed Care	• STAR and STAR+PLUS members	• CAHPS® Surveys	• Descriptive statistics • Descriptive trend analysis
5.2 CHIRP will increase the percentage of Hospitals that participate in learning collaboratives	5.2.1 Learning Collaborative Participation	• Hospitals enrolled in ACIA	• ACIA Provider Reporting	• Descriptive statistics • Descriptive trend analysis
5.3 CHIRP will increase the percentage of Hospitals that participate in timely and efficient exchange of health information	5.3.1 HIE Participation	• Hospitals enrolled in UHRIP	• UHRIP Provider Reporting	• Descriptive statistics • Descriptive trend analysis

Note. STAR = Texas Medicaid Managed Care program for children, newborns, and pregnant women; STAR+PLUS = Texas Medicaid Managed Care program for individuals age 21 and older with disabilities and individuals age 65 or older; CAHPS® = Consumer Assessment of Healthcare Providers and Systems.

Table 3. CHIRP Evaluation Measures, Baseline, and Performance Targets

Measure Name	NQF#	Measure Steward	Baseline Statistic STAR	Baseline Statistic STAR+PLUS	Performance Target	CMS Core Measure
Potentially Preventable Admissions (PPA)*	NA	3M	2017: 0.31 weights per 1,000 member months	2017: 9.32 weights per 1,000 member months	• Targets: ○ STAR 2022: 0.31 ○ STAR+PLUS 2022: 9.30	No
Potentially Preventable Complications (PPC)*	NA	3M	2017: 2.94 weights per 1,000 at risk admissions	2017: 39.06 weights per 1,000 at risk admissions	• Targets: ○ STAR 2022: 2.78 ○ STAR+PLUS 2022: 36.37	No
Potentially Preventable Readmissions (PPR)	NA	3M	2020 - 21: TBD weights per 1,000 at-risk admissions {2019 rate: 21.49}	2020 - 21: TBD weights per 1,000 at-risk admissions {2019 rate: 308.78}	• Targets ○ STAR 2022: 20.85 ○ STAR+PLUS 2022: 295.42	No
Getting Care Quickly*	NA	NCQA	Medicaid Adult 2017: 60.5% Medicaid Child 2017: 82.9%		• Targets: ○ Adult 2022: 60.5% ○ Child 2022: 83.0%	Yes
Getting Needed Care*	NA	NCQA	Medicaid Adult 2017: 52.7% Medicaid Child 2017: 68.7%		• Targets: ○ Adult 2022: 56.0% ○ Child 2022: 70.0%	Yes

Measure Name	NQF#	Measure Steward	Baseline Statistic STAR	Baseline Statistic STAR+PLUS	Performance Target	CMS Core Measure
Pregnancy Associated Outcome Measure: Severe Maternal Morbidity (SMM Among All Deliveries) *	NA	AIM	2020 - 21: TBD {2019: 1.67%}	2020 - 21: TBD {2019: 5.60%}	• Maintain or reduce the percentage of deliveries that result in severe maternal morbidity. • *A more specific performance target may be set after collecting performance data for CY 2021 and setting the baseline for CHIRP. The potential impact of COVID on this measure is not yet known.*	No
Caesarean Sections among uncomplicated deliveries (IQI 21)	NA	AHRQ	2020 - 21: TBD {2019: 30.53%%}	2020 - 21: TBD {2019: 41.20%}	• Maintain or reduce the percentage of uncomplicated deliveries that result in cesarean sections. • *A more specific performance target may be set after collecting performance data for SFY 2021 and setting the baseline for CHIRP. The potential impact of COVID on this measure is not yet known.*	Yes
Follow-Up After Hospitalization for Mental Illness (FUH)*	0576	NCQA	7 Day 2020 - 21: TBD {2019: 29.87%} 30 Day 2020 - 21: TBD {2019: 51.34%}	7 Day 2020 - 21: TBD {2019: 22.83%} 30 Day 2020 - 21: TBD {2019: 41.45%}	• Improve the percentage of hospitalizations for psychiatric illness that are followed by a completed outpatient follow-up appointment within 7 and 30 days. • *A more specific performance target may be set after collecting performance data for SFY 2021 and setting the baseline for CHIRP. The potential impact of COVID on this measure is not yet known.*	Yes

Measure Name	NQF#	Measure Steward	Baseline Statistic STAR	Baseline Statistic STAR+PLUS	Performance Target	CMS Core Measure
Follow-Up After ED Visits for Mental Illness (FUM)	3489	NCQA	7 Day 2020 - 21: TBD {2019: 40.19%} 30 Day 2020 - 21: TBD {2019: 52.85%}	7 Day 2019: 33.14% 2020 - 21: TBD {2019: 33.14%} 30 Day 2020 - 21: TBD {2019: 48.44%}	• Improve the percentage of emergency department visits for psychiatric illness that are followed by a completed outpatient follow-up appointment within 7 and 30 days. • *A more specific performance target may be set after collecting performance data for SFY 2021 and setting the baseline for CHIRP. The potential impact of COVID on this measure is not yet known.*	Yes
Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention	0028	NCQA	2021: TBD	2021: TBD	• Improve (increase) the median performance rate between CY2021 and CY2022 for rural hospitals participating in ACIA. • *A more specific performance target may be set after collecting performance data for CY 2021 and setting the baseline for CHIRP. The potential impact of COVID on this measure is not yet known.*	No
Preventive Care and Screening: Influenza Immunization	0041	NCQA	2021: TBD	2021: TBD	• Improve (increase) the median performance rate between CY2021 and CY2022 for rural hospitals participating in ACIA. • *A more specific performance target may be set after collecting performance data for CY 2021 and setting the baseline for CHIRP. The potential impact of COVID on this measure is not yet known.*	No

* Measure is a cross-cutting program measure that is included in the goals and evaluation of a complementary directed payment programs including two or more of Comprehensive Hospital Rate Increase Program (CHIRP), Directed Payment Program for Behavioral Health Services (BHS), and Rural Access to Primary and Preventive Services (RAPPS).

Data Sources

The CHIRP evaluation measures leverage data sources used by the EQRO.

- **Medicaid claims data.** Medicaid fee-for-service and MMC claims data contain encounter, procedure, diagnosis, and place of service codes and other member-level information necessary to calculate evaluation measures.
- **Medicaid enrollment data.** Medicaid enrollment files contain member-level demographic information including age, gender, race/ethnicity, county, MMC program, and length of enrollment.
- **Consumer Assessment of Healthcare Providers and Systems (CAHPS®) surveys.** CAHPS® survey data is sampled and contain information about member experience receiving care through their health plan.

Where feasible, the CHIRP evaluation measures will also use provider-reported data for analysis at the hospital level.

Analytic Methods

Advanced techniques for examining changes over time, such as interrupted time series analysis, are not appropriate due to the limited amount of data points available for the CHIRP evaluation. Rather, the evaluation will use descriptive trend analysis (DTA) to determine improvements in CHIRP performance measures over time. DTA plots and analyzes time-series data calculated at equally spaced intervals to explain patterns in selected measures over time. DTA typically focuses on identification and quantification of a trend through the use of correlation coefficients or ordinary least squares regression, if feasible.

The evaluation may also make use of descriptive statistics, such as estimates of central tendency and dispersion, to describe performance on key measures during the evaluation period. To strengthen DTA and other descriptive statistics, the CHIRP evaluation will also leverage benchmarks and subgroup analyses, where feasible, to help substantiate and contextualize observed trends.

Anticipated Limitations

Results from the CHIRP evaluation will need to be interpreted alongside several limitations. The most salient threat to the internal validity of the evaluation is the possibility that factors external to the CHIRP program will influence the evaluation measures. For example, several additional directed payment programs (e.g., the Texas Incentive for Physicians and Professional Services and Rural Access to

Primary and Preventive Services) will be implemented at the same time as CHIRP. Accordingly, it is not possible to isolate the impact of CHIRP through these evaluation measures. Additionally, the Delivery System Reform Incentive Program (DSRIP) began a gradual phase-out on October 1, 2019, and final payments will occur in January 2023. DSRIP incentivizes hospitals and other providers to meet access- and outcome-related goals. It is not possible to isolate the impact of CHIRP from impacts associated with DSRIP ending.

It should also be noted that this evaluation design is being written amidst the COVID-19 pandemic. The outbreak has reordered priorities for both clients and providers in the state. HHSC anticipates the COVID-19 pandemic will have a direct or indirect impact on many of the measures used in this evaluation. At the time of writing, it is unknown how long the most severe effects of the pandemic will last. The CHIRP evaluation will take care to present pertinent findings within the appropriate context.

Third, since the CHIRP evaluation population will consist of all STAR and STAR+PLUS, including those members who may not have had an encounter with a CHIRP hospital during the study timeframe, the evaluation measures may be analyzed at the Medicaid Managed Care (MMC) program-level but not necessarily at the hospital level. Where feasible, the CHIRP evaluation measures will also use provider-reported data for analysis at the hospital level. To mitigate this limitation in future years, HHSC is pursuing options to develop a member level attribution methodology for standard evaluation at the hospital level.

A final limitation is that CHIRP and the evaluation operate on different calendars. CHIRP will begin on September 1, 2021 and operate on state fiscal years, whereas the evaluation will operate on calendar years to align with the EQRO’s reporting timelines of evaluation measures.

Despite these limitations, this evaluation will demonstrate how CHIRP advances select goals identified in the Texas Managed Care Quality Strategy.